

CLAIMS

1. Device for the production of anastomoses between hollow organs (1, 2), with an inner sleeve (3) to be mounted  
5 around the end of the first hollow organ (1), and with an outer sleeve (4) to be mounted around the end of the second hollow organ (2) after the latter end has been arranged over the end of the first hollow organ (1) which has been turned inside out over the inner sleeve (3),  
10 wherein the inner and outer sleeves (3, 4) are each made separable so that they can be removed after anastomosis formation has been completed,  
characterized in that the inner sleeve (3) and the outer sleeve (4) comprise electrically conductive materials  
15 that can be connected to an external current or voltage source (9) so that a current or a voltage can be applied to the electrically conductive materials for the electrocoagulation of the hollow organs (1, 2) that are to be connected to one another.  
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2. Device according to Claim 1, characterized in that the inner sleeve (3) and/or the outer sleeve (4) is made of the electrically conductive material.
- 25 3. Device according to Claim 1 or 2, characterized in that at the outer surface of the inner sleeve (3) and/or the inner surface of the outer sleeve (4) at least one contact surface (5, 6) made of electrically conductive material is disposed.  
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4. Device according to Claim 3, characterized in that the contact surfaces (5, 6) on the inner sleeve (3) and the outer sleeve (4) are arranged circumferentially.
- 35 5. Device according to one of the Claims 1 to 4, characterized in that the inner sleeve (3) and/or the

outer sleeve (4) is constructed of preferably flexibly pivotable components (3', 3" and 4', 4" respectively).

- 5 6. Device according to Claim 5, characterized in that the pivotable components (3', 3" and 4', 4") of the sleeves (3, 4) comprise catch elements (19, 20) to interlock in the closed position.
- 10 7. Device according to one of the Claims 1 to 6, characterized in that the inner sleeve (3) and/or the outer sleeve (4) comprises predefined breaking sites (17).
- 15 8. Device according to one of the Claims 1 to 7, characterized in that the outer sleeve (4) is formed by a wire arranged in the shape of a loop.
- 20 9. Device according to one of the Claims 1 to 8, characterized in that the inner sleeve (3) comprises fitting elements (21) and the outer sleeve (4) comprises fitting elements (22) of complementary shape, which fit into one another in the arrangement used during electrocoagulation.
- 25 10. Device according to one of the Claims 1 to 9, characterized in that the inner sleeve (3) and/or the outer sleeve (4) is made of plastic, for example polyethylene.
- 30 11. Device according to one of the Claims 1 to 10, characterized in that the contact surfaces (5, 6) of the sleeves (3, 4) are made of stainless steel.
- 35 12. Device according to one of the Claims 1 to 11, characterized in that an apparatus (12) is provided to

measure the impedance between the contact surfaces (5, 6) of the sleeves (3, 4).

- 5        13. Device according to one of the Claims 1 to 12, characterized in that on the inner sleeve (3) and/or the outer sleeve (4) a temperature sensor (13) is disposed.
- 10       14. Device according to one of the Claims 1 to 13, characterized in that to the current or voltage source (9) a control means (10) is connected.
- 15       15. Device according to Claim 14, characterized in that the control means (10) comprises a time-switch (11).
- 15       16. Device according to one of the Claims 12 to 15, characterized in that the impedance-measurement apparatus (12) is connected to the current or voltage source (9) or to the control means (10).
- 20       17. Device according to one of the Claims 13 to 16, characterized in that the temperature sensor (13) is connected to the current or voltage source (9) or to the control means (10).
- 25       18. Device according to one of the Claims 1 to 17, characterized in that the sleeves (3, 4) have a substantially cylindrical cross section.